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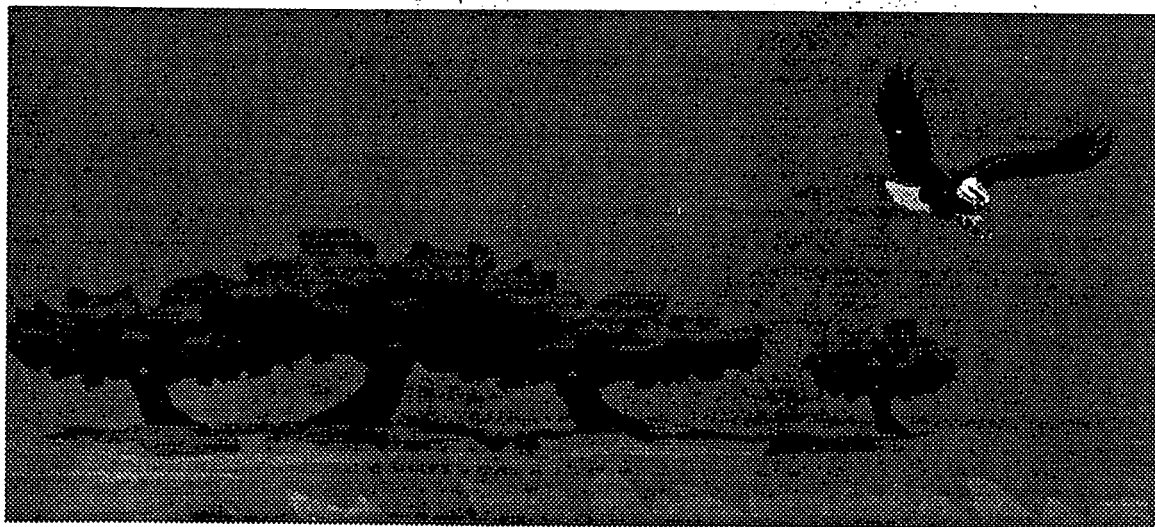
Environmental restoration program:  
monthly report for June 1991

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# ENVIRONMENTAL RESTORATION PROGRAM

Monthly Report For  
*June, 1991*



July 20, 1991



**EG&G ROCKY FLATS**

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**U.S. DEPARTMENT OF ENERGY  
ROCKY FLATS PLANT  
ENVIRONMENTAL RESTORATION  
PROGRAM**

**MONTHLY REPORT FOR  
JUNE 1991**

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## 1.0 INTRODUCTION

This Monthly Status Report presents the current status and technical achievements of the Rocky Flats Environmental Restoration Program for June 1991. This Program implements the Interagency Agreement between the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the State of Colorado to investigate, assess, and remediate, where necessary, contaminated areas at or adjacent to DOE's Rocky Flats Plant in Golden, Colorado. This agreement was signed on January 22, 1991. The work is being performed for DOE by EG&G Rocky Flats, Inc.

Section 2.0 of this report, the Executive Summary, highlights significant achievements and summarizes the milestones completed during June. It also presents any major unresolved issues of the Program. Technical progress, schedule status, and milestone status for each Operable Unit as well as other Program activities are presented in Section 3.0. Operable Units in which no FY91 activity is planned are not included. Section 4.0 contains the schedules for routine environmental sampling as required by paragraph 210 of the Interagency Agreement. Section 5.0 contains a list which identifies the contractors and subcontractors performing work on the Program as required by paragraph 13 of the IAG.

## **2.0 EXECUTIVE SUMMARY**

### **2.1 SIGNIFICANT ACTIVITIES AND ACHIEVEMENTS FOR THE REPORT MONTH**

A comprehensive addendum to the OU1 RFI/RI Work Plan was completed in June and delivered to EPA/CDH for review. It details the analytical program to date for the 881 Hillside area and proposes some new analytical strategies based on historic occurrences.

Final design/specification revision for the OU1 IRA Phase II-B French drain is continuing. The EG&G Engineering Project Engineer working on the French drain was temporarily assigned to the high priority PCB investigation and response action. Revisions to the construction package are scheduled to be completed by July 12, 1991.

The modified 1991 OU2 alluvial drilling plan was approved by EPA/CDH. The approved modifications will be incorporated in the revised OU2 RFI/RI Work Plan. This revision will be issued as a final version by EG&G in July 1991.

Final revisions of the Environmental Evaluation Work Plans for OUs 1, 2, and 5 are now complete. Formats and approaches are consistent, and both regulatory agency and DOE comments have been received and incorporated into all three Work Plans.

The OU3 Offsite Areas Past Remedy Report was approved by EPA/CDH. Copies will be provided to representatives of the local cities, Technical Review Group members, and reading rooms.

CDH has requested DOE/RFO to prepare an Interim Measure/Interim Remedial Action (IM/IRA) Plan for the surge tanks and flash evaporators which are used to treat ground water from the OU4 - Solar Evaporation Ponds.

The OU3 Offsite Areas Risk Assessment Education Work Group, composed of personnel from EPA, CDH, DOE, and EG&G, met June 6, 1991, and June 26, 1991, to continue development of a presentation on Risk Assessment. The presentation objective is to educate the public on risk assessments in general and OU3 specifically, using the Past Remedy Report and Historical Reservoir Report.

The Sitewide Community Relations Plan responsiveness summary was delivered to EPA/CDH on its milestone date of June 21, 1991.

The final Quality Assurance Project Plan was approved by CDH on June 26, 1991. EPA approval is pending.

### **2.2 PROBLEMS AND PROGRAMMATIC ISSUES**

Procurement of the OU1 Phase II-A ion exchange system and effluent storage tanks is being delayed. There is currently a shortage of the required American-made ASME-certified tanks. The best contractor estimate on the delivery date of the ion exchange tanks and effluent storage tanks is October 1991, and January 1992, respectively. Negotiations with the contractor are taking place in order to expedite the procurement of these tanks. The delay will not impact completion of the milestone for start of IRA testing in August 1991.

The DOE NEPA group has directed EG&G not to proceed with the OU1 and the OU2 drilling and trenching

fieldwork activities until a Categorical Exclusion has been issued. If this issue further delays the start of RI fieldwork, IAG milestones could be impacted.

Remedial actions for OU3 - Offsite Areas required under the 1985 McKay vs. U.S. Settlement Agreement may be in conflict with CERCLA. Tilling of the land surface to mix plutonium-contaminated surface soil, as required under the Settlement Agreement, prior to completion of the RI/FS, will probably not be acceptable to EPA. The remedial action as determined by the RI/FS process, if any, will probably not include plutonium soil mixing through tilling. EPA/CDH and DOE staff are working to resolve the issue.

Western Aggregate has submitted a request to DOE to mine the mineral resources for which they own the rights and which are under a portion of the western edge of the Rocky Flats Plant. The land in question is located within OU11 - West Spray Field. DOE has had preliminary discussions with EPA on this matter, and EPA agrees with DOE that any decision on mining operations should be delayed until the OU assessment is complete. The DOE-RFO legal staff is reviewing the request from Western Aggregate.

### 2.3 NEAR-TERM IAG MILESTONES

<u>OU#</u>	<u>Milestone Description</u>	<u>Scheduled Completion</u>	<u>Actual Completion</u>
SW	Submit Final Treatability Study Plan	03 Jun 91	03 Jun 91
SW	Submit Community Relations Plan Responsiveness Summary	21 Jun 91	21 Jun 91
02	Submit Final Phase II RFI/RI Work Plan (Bedrock)	02 Jul 91	
03	Submit Draft Phase I RFI/RI Work Plan	10 Jul 91	
SW	Submit Final Plan for Prevention of Contaminant Dispersion	22 Jul 91	

### 3.0 PROJECT STATUS

#### 3.1 OU1 - 881 HILLSIDE AREA

##### DESCRIPTION:

The soil and groundwater at the 881 Hillside Area, located north of Woman Creek in the southeast section of RFP, were potentially contaminated in the 1960s and 1970s with solvents and radionuclides. The various individual hazardous substance sites that make up OU1 are being investigated and treated as high-priority sites because of elevated concentrations of organic compounds in the near-surface groundwater and the proximity of the contamination to a drainage system leading to an offsite drinking water supply. The selected Interim Remedial Action (IRA) at OU1 involves construction of an underground drainage system (French drain) that will intercept and contain contaminated groundwater flowing from the OU1 area. The contaminated water will be treated and released back into the interceptor ditch alongside Woman Creek.

##### 3.1.1 OU1 ASSESSMENT

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

##### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase III RFI/RI Work Plan  
Submit Final Phase III RFI/RI Work Plan

06 Feb 90  
31 Oct 90

##### JUNE WORK ACTIVITY STATUS:

A comprehensive addendum to the OU1 RFI/RI Work Plan was completed in June and delivered to EPA/CDH for review. It details the analytical program to date for the 881 Hillside area and proposes some new analytical strategies based on historic occurrences.

The Environmental Evaluation field work for OU1 is continuing.

##### PLANNED WORK FOR JULY:

Environmental Evaluation field work for OU1 will continue through July 1991.

##### PROBLEMS:

Drilling and sample collection is on hold until EPA approves the Standard Operating Procedures, and a Categorical Exclusion is issued by DOE.

OPEN ITEMS: None

### 3.1.2 OU1 REMEDIATION

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Proposed IM/IRA Decision Document	18 Sep 89
Submit Proposed IM/IRA Decision Document	06 Oct 89
Submit Final IM/IRA Decision Document	05 Jan 90
Begin Phase I-A IM/IRA Construction	15 Jan 90
Restart Phase I-A IM/IRA Construction (after shutdown)	20 Jun 90
Begin Phase I-B IM/IRA Construction (ahead of schedule)	28 Sep 90
Submit IM/IRA Implementation Document	22 Feb 91
Begin Phase II-A IM/IRA Construction	01 Apr 91

#### JUNE WORK ACTIVITY STATUS:

Final design/specification revision for the Phase II-B French drain is continuing. The EG&G Engineering Project Engineer working on the French drain was temporarily assigned to the high priority PCB investigation and response action. Engineering staff have now returned to the French drain project. Revisions to the construction package are scheduled to be completed by July 12, 1991.

The Phase II IRA process equipment installation contract was awarded on June 4, 1991.

Preparation of a Statement of Work (SOW) was initiated for the startup and operation of the IRA groundwater treatment system. This SOW will cover the preparation of documents relative to the startup and operation of the treatment system and the initial operation of the equipment until the system is turned over to EG&G Waste Operations.

#### PLANNED WORK FOR JULY:

Revisions to the Phase II-B construction package are scheduled to be completed by July 12, 1991.

#### PROBLEMS:

Procurement of the Phase II-A effluent storage tanks is being delayed. There is currently a shortage of the required American-made ASME-certified tanks. The best contractor estimate on the delivery date of the ion exchange tanks and effluent storage tanks is January 1992. Negotiations with the contractor are taking place in order to expedite the procurement of these tanks. The delay will not impact completion of the milestone for start of IRA testing in August 1991.



OPEN ITEMS: None

### 3.2 OU2 - 903 PAD, MOUND, AND EAST TRENCHES

#### DESCRIPTION:

The contamination at the 903 Pad and Mound areas is largely attributed to the storage in the 1950s and 1960s of waste drums that corroded over time, allowing hazardous and radioactive material to leak into the surrounding soil. Additional contamination may have resulted from wind dispersion during removal and soil movement activities. The East Trenches Area was used for disposal of plutonium- and uranium-contaminated waste and sanitary sewage sludge from 1954 to 1968. Two areas adjacent to the trenches were used for spray irrigation of sewage treatment plant effluent, some of which may have contaminants that were not removed by the treatment system.

The IM/IRA Plan provides for surface water seeps in source areas of contamination to be treated and discharged to the surface water system. Operation of a field-scale treatability unit began for the Walnut Creek drainage in 1991. The effectiveness of the treatment process will be evaluated at three locations: the entrance to the treatment facility, several points within the facility, and the discharge point. After completion of the field-scale treatability tests, the unit is anticipated to remain in service until the final remedial action is operational. Bench-scale testing of surface water in the Woman Creek drainage is planned for the spring of 1991, after which a separate Interim Remedial Action Plan for this drainage will be developed.

#### 3.2.1 OU2 ASSESSMENT

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase II RFI/RI Work Plan (Alluvial)	21 Dec 89
Submit Final Phase II RFI/RI Work Plan (Alluvial)	12 Apr 90
Submit Draft Phase II RFI/RI Work Plan (Bedrock)	05 Feb 91

#### JUNE WORK ACTIVITY STATUS:

The surficial soils sampling program in support of OU2 RFI/RI fieldwork started the week of June 17, 1991. Surveyors are in the field preparing the horizontal control network that will be used to locate the 10 and 2.5 acre soil sampling sites.

The modified 1991 alluvial drilling plan was approved by EPA/CDH. The approved modifications will be incorporated in the revised OU2 RFI/RI Work Plan. This revision will be issued as a final version by EG&G in July 1991.

The Environmental Evaluation field work for OU2 is continuing. Drilling and sample collection can start as soon as EPA approves the Standard Operating Procedures and a Categorical Exclusion is received from DOE/HQ NEPA.

#### PLANNED WORK FOR JULY:

Resolution of EPA/CDH comments by DOE and EG&G on the draft Phase II RFI/RI Work Plan (Bedrock) will be completed in time for its IAG required submittal to EPA/CDH on July 2, 1991.

The modified 1991 alluvial drilling plan will be issued by EG&G to DOE in July 1991.

#### PROBLEMS:

The DOE NEPA group has directed EG&G to stop the OU2 drilling and trenching fieldwork activities until a Categorical Exclusion has been prepared on the OU2 field activities. The schedule impact of this NEPA requirement is being evaluated.

OPEN ITEMS: None

#### 3.2.2 OU2 REMEDIATION

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Proposed IM/IRA Decision Document	19 Jun 90
Submit Proposed Plan IM/IRA Decision Document	18 Sep 90
Submit Draft Responsiveness Summary	13 Dec 90
Submit Draft Responsiveness Summary and Final IM/IRA Decision Document	11 Jan 91
Field Treatability Test System Installation Complete	12 May 91
Begin Field Treatability Tests	13 May 91

#### JUNE WORK ACTIVITY STATUS:

On June 1, 1991, a major storm occurred at RFP that caused some minor damage and operational problems with the field treatability unit 1 GAC treatment system. As a result of the storm, excess streamflows bypassed the SW61 collection pump for an estimated total of four hours. The volume of water bypassed will be estimated. EG&G's subcontractor, Riedel Environmental Services, completed minor repairs to the system along South Walnut Creek the day following the storm.

The draft granular activated carbon (GAC) treatment system O&M manual for the OU2 Walnut Creek IRA facility was completed and submitted for review by EG&G on June 20, 1991.

RFO has contacted DOE/UMTRA about using a radionuclides removal unit that may be available for short term use on the OU2 IRA. EG&G is also proceeding with the design/build/procurement of a radionuclides

removal system for which start-up is anticipated in mid-September 1992.

A draft schedule for completion of the OU2 Woman Creek IRA seep collection system construction was completed on June 10, 1991. Additional DOE/HQ-driven NEPA additions to the schedule have extended the projected start-up date of the project from September 1992 to November 1992. Detailed activity schedules for this project have been developed and are being reviewed.

On June 4, 1991, a meeting was held among EG&G Environmental Management, Legal, Purchasing, and Traffic to discuss the shipping of samples and residuals generated during OU2 treatability studies. It was agreed that the treatability study contractor will be held responsible for the packaging, labeling, and shipping of all samples taken from RFP and all residual material returned to RFP. The Traffic Department will not be involved in the transportation of samples and residuals from the treatability studies.

#### PLANNED WORK FOR JULY:

Operation of the South Walnut Creek IRA GAC unit will continue.

EG&G staff will continue to review the schedule for the proposed Woman Creek phase of the OU2 IRA.

PROBLEMS: None

OPEN ITEMS: None

### 3.3 OU3 - OFFSITE AREAS

#### DESCRIPTION:

OU3 can be divided into two categories based on the two drivers of the activities. The IAG directs activities according to CERCLA. This involves assessment of contamination in offsite areas also referred to as Individual Hazardous Substance Sites (IHSSs) (previously referred to as SWMUs): Contamination of the Land Surface (IHSS 199), Great Western Reservoir (IHSS 200), Standley Lake (IHSS 201), and Mower Reservoir (IHSS 202). The second category responds to a 1985 out-of-court lawsuit settlement, McKay v. U.S., which directed that the surface soil contamination be remediated. Remedial activities in compliance with the Settlement Agreement (deep disc plowing) began in 1985. The disturbance resulting from remediation is being revegetated with mediocre success. The overall schedule for this activity is determined by the year-to-year success of the revegetation effort and requirements of the land owners.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Past Remedy Report	26 Oct 90
Submit Draft Historical Information/Preliminary Health Risk Assessment Report	09 Nov 90
Submit Final Past Remedy Report	02 Apr 91
Submit Final Historical Information/Preliminary Health Risk Assessment Report	16 Apr 91

#### JUNE WORK ACTIVITY STATUS:

Agreement was reached with EPA on changes to the Historical Information Summary and Preliminary Health Risk Assessment Report concerning a comment requesting inclusion of a residential risk scenario. Although current land use precludes the residential scenario, a modified residential exposure assessment will be included in the generic risk assessment. The document was revised and resubmitted to EPA/CDH on June 21, 1991.

The Offsite Areas Risk Assessment Education Work Group, composed of personnel from EPA, CDH, DOE, and EG&G, met June 6, 1991, and June 26, 1991, to continue development of a presentation on Risk Assessment. The presentation objective is to educate the public on risk assessments in general and OU3 specifically, using the Past Remedy Report and Historical Reservoir Report.

The first meeting of the Offsite Areas Technical Review Group (TRG) was held June 11, 1991. Following an introduction and discussion of organizational structure, a presentation on OU3 was made. The first task of the TRG will be to review the upcoming OU3 Draft RI Work Plan. This review period will coincide with the EPA/CDH review period starting July 10, 1991. Comments from the TRG will be given to EPA/CDH and then submitted to DOE with EPA/CDH comments.

The Past Remedy Report was approved by EPA/CDH. Copies will be provided to representatives of the

local cities, TRG members, and reading rooms.

**PLANNED WORK FOR JULY:**

The draft Phase I RFI/RI Work Plan will be submitted for agency review on its IAG milestone date of July 10, 1991.

**PROBLEMS:**

Remedial actions required under the 1985 McKay vs. U.S. Settlement Agreement may be in conflict with CERCLA. Tilling of the land surface to mix plutonium contaminated surface soil, as required under the Settlement Agreement, prior to completion of the RI/FS will probably not be allowed by EPA. The remedial action as determined by the RI/FS process, if any, will probably not include plutonium soil mixing through tilling.

**OPEN ITEMS:** None

### 3.4 OU4 - SOLAR PONDS

#### DESCRIPTION:

Five evaporation ponds were used for storage of low-level radioactive process waste, sanitary treatment plant effluent, and contaminated groundwater collected downgradient of the ponds. The ponds are RCRA interim status regulated units that are currently under closure. Leakage from the ponds has contaminated soils and groundwater with various contaminants, including heavy metals and uranium.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan

08 Jun 90

#### JUNE WORK ACTIVITY STATUS:

CDH has requested DOE/RFO to prepare an Interim Measures/Interim Remedial Action (IM/IRA) Work Plan for the surge tanks and flash evaporators which are used to treat groundwater from the Solar Evaporation Ponds.

#### PLANNED WORK FOR JULY:

EPA/CDH will begin their review of the IM draft Phase I RFI/RI Work Plan on July 3, 1991.

#### PROBLEMS:

The delay in removal of sludge from the solar ponds will impact the scheduled start of the RFI/RI field activities in January 1992. The impact of this delay on IAG milestones is being evaluated.

OPEN ITEMS: None

### 3.5 OU5 - WOMAN CREEK

#### DESCRIPTION:

This activity encompasses assessment and remediation at the Woman Creek drainage, to include: Original Landfill; Ash Pits 1-4, Incinerator, and Concrete Wash Pad; Retention Ponds C-1 and C-2; and the surface disturbance southeast of Building 881.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan

05 Apr 91

#### JUNE WORK ACTIVITY STATUS:

Agency review of the draft Phase I RFI/RI Work Plan continued through June 1991.

The final Environmental Evaluation (EE) Work Plan was completed and submitted to EPA/CDH. The plan is now consistent in format and approach with the EE Work Plan for OUs 1 and 2 so that the field work for all three operable units can proceed simultaneously.

#### PLANNED WORK FOR JULY:

EPA/CDH review of the draft Phase I RFI/RI Work Plan will continue until July 3, 1991. The subsequent resolution of issues process and preparation of the final plan will continue into late August 1991.

PROBLEMS: None

#### OPEN ITEMS:

The regulatory agencies review of the draft Phase I RFI/RI Work Plan are scheduled to be complete on July 3, 1991.



### 3.6 OU6 - WALNUT CREEK

#### DESCRIPTION:

This activity encompasses assessment and remediation at the Walnut Creek Drainage, to include: Sludge Dispersal; Retention Ponds A-1, A-2, A-3, A-4, A-5, B-1, B-2, B-3, B-4, and B-5; Old Outfall; Triangle Area; Trenches A, B, and C; and the North section of the East Spray Field.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan

19 Apr 91

#### JUNE WORK ACTIVITY STATUS:

EPA/CDH review of the draft Phase I RFI/RI Work Plan continued through June 1991.

#### PLANNED WORK FOR JULY:

The regulatory agencies review of the draft Phase I RFI/RI Work Plan are scheduled to be complete on July 18, 1991. Incorporation of comments and preparation of the final plan will then begin.

PROBLEMS: None

#### OPEN ITEMS:

The regulatory agencies review of the draft Phase I RFI/RI Work Plan are scheduled to be complete on July 18, 1991.

### 3.7 OU7 - PRESENT LANDFILL

#### DESCRIPTION:

The Present Landfill began operation in 1968. The landfill provided a means of disposing nonradioactive and nonhazardous solid waste. Some of the solid wastes from the plant, which were disposed in the landfill, are suspected to have contained hazardous waste and/or hazardous constituents. Although currently operating as a nonhazardous sanitary landfill, the facility is considered an inactive hazardous waste disposal unit undergoing RCRA closure.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan

08 Jun 90

#### JUNE WORK ACTIVITY STATUS:

Incorporation of new information into the draft Phase I RFI/RI Work Plan continued through June 1991.

#### PLANNED WORK FOR JULY:

Work on the final Phase I RFI/RI Work Plan will continue through July, on schedule for its IAG milestone submittal date of August 28, 1991.

PROBLEMS: None

OPEN ITEMS: None

### 3.9 OU9 - ORIGINAL PROCESS WASTE LINES

#### DESCRIPTION:

This activity involves characterizing a series of tanks and associated process waste lines. The system was constructed to transport and temporarily store aqueous process wastes. Soil characterization studies will determine the need for soil removal and/or treatment.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan

08 Jun 90

#### JUNE WORK ACTIVITY STATUS:

No activity.

#### PLANNED WORK FOR JULY:

EPA/CDH will begin review of the IM draft Phase I RFI/RI Work Plan on July 3, 1991.

PROBLEMS: None

OPEN ITEMS: None

### **3.10 OU10 - OTHER OUTSIDE CLOSURES**

#### **DESCRIPTION:**

OU10 is made up of 18 IHSSs consisting of various hazardous waste units. An RFI/RI Work Plan is currently in preparation. The primary components of the RFI/RI Work Plan for OU10 will be a Field Sampling Plan (FSP), Baseline Risk Assessment Plan (BRAP), and an EE Work Plan.

**SCOPE OF WORK CHANGES:** None

**TECHNICAL APPROACH CHANGES:** None

#### **MILESTONE ACCOMPLISHMENTS:**

The first IAG milestone for this OU is scheduled for November 1991.

#### **JUNE WORK ACTIVITY STATUS:**

Three additional individual hazardous substance sites (IHSSs) were transferred from other operable units to OU10 after the draft RFI/RI Work Plan was completed in FY90. The draft Work Plan was based on the draft IAG which was modified during final IAG negotiations. A contract modification has been initiated to incorporate the three IHSS and to perform general upgrades to the plan.

#### **PLANNED WORK FOR JULY:**

Revision of the draft RFI/RI Work Plan will begin.

**PROBLEMS:** None

**OPEN ITEMS:** None

### 3.11 OU11 - WEST SPRAY FIELD

#### DESCRIPTION:

The West Spray Field is located within Rocky Flats property boundary immediately west of the plant security area. The West Spray Field was in operation from April 1982 to October 1985. During operation, excess liquids from the solar evaporation ponds 207-B North and Center (contaminated groundwater in the vicinity of the ponds and treated sanitary sewage effluent) were pumped periodically to the West Spray Field for spray application. The spray field boundary covers an area of approximately 105.1 acres, 38.3 of which received direct application of hazardous waste. The RFI/RI process will entail field studies to determine the presence and levels of hazardous constituents in soil and groundwater.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Phase I RFI/RI Work Plan

08 Jun 90

#### JUNE WORK ACTIVITY STATUS:

No activities are scheduled until July 1991.

#### PLANNED WORK FOR JULY:

EPA/CDH review of the draft Phase I RFI/RI Work Plan is scheduled to begin July 31, 1991.

#### PROBLEMS:

Western Aggregate has submitted a request to DOE to mine the mineral resources for which they own the rights and which are under a portion of the western edge of the Rocky Flats Plant. The land in question is located within Operable Unit 11 - West Spray Field. DOE has had preliminary discussions with EPA on this matter, and EPA agrees with DOE that a decision for any mining operations should be delayed until the OU assessment is complete. The DOE-RFO legal staff is reviewing the request from Western Aggregate.

OPEN ITEMS: None

### 3.12 SITEWIDE ACTIVITIES

#### DESCRIPTION:

Sitewide activities include several tasks that encompass a wide variety of plans, procedures, reports, studies, and other activities required by the IAG and that apply to RFP in general.

SCOPE OF WORK CHANGES: None

TECHNICAL APPROACH CHANGES: None

#### MILESTONE ACCOMPLISHMENTS:

Submit Draft Background Study Report (Water)	15 Dec 89
Submit Draft Background Study Report (Soils)	15 Dec 89
Submit Draft Community Survey Plan	23 Jan 90
Submit Final Community Survey Plan	22 Mar 90
Submit Draft Health and Safety Plan	15 Aug 90
Submit Draft Quality Assurance Project Plan	29 Aug 90
Submit Draft Standard Operating Procedures	29 Aug 90
Submit Draft Plan for Prevention of Contaminant Dispersion	19 Sep 90
Submit Draft Treatability Study Plan	21 Sep 90
Submit Draft Community Relations Plan	01 Nov 90
Submit Final Health and Safety Plan	12 Nov 90
Submit Revised Background Study Report	21 Dec 90
Submit Final Community Relations Plan	22 Jan 91
Submit Final Quality Assurance Project Plan	01 Mar 91
Submit Final Standard Operating Procedures	01 Mar 91
Submit Draft Radionuclides Discharge Limits Plan	05 Apr 91
Submit Community Relations Plan Responsiveness Summary	21 Jun 91
Submit Final Treatability Study Plan	03 Jun 91

#### JUNE WORK ACTIVITY STATUS:

The Community Relations Plan Responsiveness Summary was delivered to EPA/CDH on its IAG milestone submittal date of June 21, 1991.

At a Plan for Prevention of Contaminant Dispersion (PPCD) working group meeting with representatives from EPA, CDH, DOE, and EG&G held on June 11, 1991, the following issues were discussed: (1) finalization of the Interim Plan for Prevention of Contaminant Dispersion (IPPCD), (2) monitoring techniques for evaluating the effectiveness of dust control measures, (3) EPA and CDH's major comments on the draft PPCD, and (4) schedule for submitting the final PPCD, Responsiveness Summary, and activities during the public comment period.

The final Treatability Study Plan was submitted to the regulatory agencies on June 3, 1991, its IAG milestone date. The plan identifies technologies potentially available for use in corrective/remedial actions for each type of waste/waste matrix in sites at the RFP and selects candidate technologies for evaluation in a

sitewide treatability studies program. Information is included on performance, applicability, removal efficiencies, operation and maintenance requirements, and implementability for the candidate technologies. The plan proposes a statement of work for a treatability study for each candidate technology which has not been adequately evaluated on the basis of existing data.

Progress is being made to permit the decontamination facility and to utilize an existing tent to temporarily store drill cuttings produced during remedial investigation field work. The GAC unit used to treat organics in the decontamination facility waste water may not be available for several months. In the interim, all decontamination facility and purge water will be analyzed for organics before being sent to the 374 evaporator. If the levels of volatile and/or semi-volatile organics are above regulatory limits, the water will be stored in an available 250,000 gallon storage tank until the GAC unit is installed. The water will then be treated by the GAC unit and sent to the evaporator.

The final Quality Assurance Project Plan was approved by the Colorado Department of Health (CDH) on June 26, 1991. EPA approval is pending.

A meeting was conducted with EPA, CDH, DOE, and EG&G on June 26, 1991 to discuss Polychlorinated Biphenyl (PCB) issues at RFP. The main function of the meeting was in relation to Bldg. 707. RFO proposed to perform limited remediation at Bldg. 707 under TSCA to expedite the cleanup process. EPA stipulated that the remediation process must comply with the criteria outlined in the IAG and would not be managed under TSCA.

Final revisions of the Environmental Evaluation Work Plans for OUs 1, 2, and 5 are now complete. Formats and approaches are consistent, and regulatory agency and DOE comments have been received and incorporated into all three Work Plans.

#### PLANNED WORK FOR JULY:

The final PPCD will be submitted for agency review and approval on its IAG milestone date of July 22, 1991.

PROBLEMS: None

#### OPEN ITEMS:

The agencies' review of the final Community Relations Responsiveness Summary will continue into late July 1991.

The agencies' review of the draft Radionuclides Discharge Limits Plan will be completed by July 8, 1991.

#### 4.0 ROUTINE ENVIRONMENTAL MONITORING

The following generalized sampling schedule for Routine Environmental Monitoring is provided as requested in Section 210 of the IAG. Detailed quarterly monitoring schedules are prepared in advance and are available to EPA and CDH upon request from the Environmental Monitoring and Assessment Division, Environmental Management Department, and EG&G Rocky Flats, Inc. The schedules are lengthy; therefore, they are not reproduced here. An EPA- or State-authorized representative may make arrangements to observe fieldwork and to obtain split or duplicate samples.

##### SURFACE WATER AND SEDIMENTS:

Each of the Surface Water Stations (approximately 120 stations) are sampled monthly.

Each of the Sediment Stations (approximately 40 stations) are sampled quarterly.

Each surface water and sediment sample is analyzed for the following parameters:

CLP TCL VOAs  
CLP TAL Metals  
plus Cesium  
Lithium  
Molybdenum  
Strontium  
Tin

Major Anions  
Radionuclides  
Field Parameters  
pH  
Temperature  
Specific Conductivity  
Dissolved Oxygen (DO)  
Turbidity

##### SOILS:

Each of the Soil Stations (located at 1- and 2-mile radii from the plant center) are sampled annually.

Each soil sample is analyzed for plutonium and americium.

##### GROUNDWATER:

Each of the Groundwater Stations (approximately 259) are sampled quarterly; this includes alluvial wells, bedrock wells, and pre-1986 wells. Approximately one third of the wells are monitored monthly for water levels.

Each groundwater sample is analyzed for CLP TCL VOAs, CLP TAL Metals, as well as the following parameters:

##### Radiochemical Parameters

Gross Alpha	Tritium
Gross Beta	Lithium
Plutonium	Uranium
Americium	Cesium
Strontium	Tin
Molybdenum	

##### Inorganic Parameters

Nitrate/Nitrite  
Total Phosphorous  
Ortho-Phosphate  
Ammonia

##### Field Parameters

Dissolved Oxygen (DO)  
Specific Conductivity  
Temperature  
Turbidity  
pH



## 5.0 CONTRACTOR/SUBCONTRACTOR IDENTIFICATION

Contractors and subcontractors being used on the Rocky Flats Plant Environmental Restoration Program and the work they are performing are identified on the following list as required by paragraph 13 of the IAG.

• Prime Contractor: 1-EG&G Rocky Flats, Inc, 2-CN Geotech

OU	PROJECT	CONT	SUBCONTRACTOR	SUB- SUBCONTRACTOR	WORK DESCRIPTION	START DATE
1	Assessment	1	Ebasco	Dames & Moore Stoller Corp.	OU1 RFI/RI fieldwork (drilling, well development/completion, sampling) and RI report	Apr-91
1	Remediation	2	Diamondback Const		Implement Phase I-B interim remedial action construction at the 881 Hillside site. Construct temporary decontamination pad.	TBD
1	Remediation	1	TBD		Construct/install effluent storage tanks for OU1 IRA	Jun-91
1	Remediation	1	Bruner		OU1 IRA ion exchange system	Feb-91
1	Remediation	1	E.T. LaFore		Installation of Phase II-A treatment system equipment for OU1 IRA	Jun-91
1	Remediation	1	Eng Sciences		Design Phase II-B French drain for OU1-881 Hillside IRA	Sep-90
1	Remediation	1	TBD		Construct Phase II-B French drain at OU1 IRA	Aug-91
1	Remediation	1	P.S.I.		UV bench scale testing for volatile organics	Aug-91
2	Assessment	1	Woodward-Clyde		OU2 RFI/RI Work Plan (alluvial & bedrock) and RI fieldwork (drilling, well completion/development)	Sep-90
2	Remediation	1	Riedel Env. Svcs.		Construct/install GAC/FTU system for South Walnut Creek phase of OU2 IRA.	Apr-91
2	Remediation	1	Stearns Rogers		Design chemical precipitation/membrane filtration system for South Walnut Creek phase of OU2 IRA.	Jun-91
2	Remediation	1	Weston		IRAP, EA, Risk Assessment, and Historical Assessment for Woman Creek	Jun-91
2	Remediation	1	TBD		Mfg./install chem. precip/filtration unit for South Walnut Creek phase of OU2 IRA	Sep-91
2	Remediation	1	TBD		Analyse water samples from OU2 South Walnut Creek treatment system.	May-91
2	Remediation	1	Woodward-Clyde		Conduct bench-scale tests on surface water from Woman Creek phase of OU2 IRA.	May-91

OU	PROJECT	CONT	SUBCONTRACTOR	SUB-SUBCONTRACTOR	WORK DESCRIPTION	START DATE
3	Assessment	1	IT Corporation		OU3 RI Work Plan	Mar-91
3	Assessment	1	TBD		Revegetate offsite lands	TBD
4	Assessment	1	IT Corporation	CH2M Hill	OU4 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	TBD
5	Assessment	1	Woodward-Clyde		OU5 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	Feb-90
6	Assessment	1	Woodward-Clyde		OU6 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	Feb-90
7	Assessment	1	IT Corporation	Stoller Corp.	OU7 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	Apr-90
9	Assessment	1	IT Corporation		OU9 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	Mar-90
10	Assessment	1	Ebasco		OU10 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	TBD
11	Assessment	1	IT Corporation		OU11 RFI/RI Work Plan including Environmental Evaluation Plan and Quality Assurance Addendum	TBD
SW	Hist. Rel. Rep.	1	IT Corporation	Doty & Assoc.	Prepare Historical Release Report	Feb-91
SW	Adm. Record	1	Tech		Maintain IAG Administrative Record	Oct-90
SW	Geolog. Char.	1	ASI		Geologic Characterization, Data Base, and graphics	Feb-90
SW	Monitoring	1	Ebasco		Analytical Services for groundwater, surface water, and sediment	Dec-90
SW	Monitoring	1	IT Corporation		Analytical Services for groundwater, surface water, and sediment	Jul-90
SW	Fld. Oversight	1	Ebasco	Stoller Corp	ER field operations oversight	Oct-90
SW	Treatability	1	Ebasco		Sitewide treatability studies	Apr-90
SW	Treatability	1	Woodward-Clyde		Technical evaluation of sitewide treatability studies	Jul-90
SW	PPCD	1	Ebasco		Plan for Prevention of Contaminant Dispersion	Jun-90
SW	QA	1	Ebasco	SAIC	Develop and implement quality assurance prog.	Dec-90
PM	Support	1	Ebasco	Stoller Corp.	Program Management Support	Feb-90